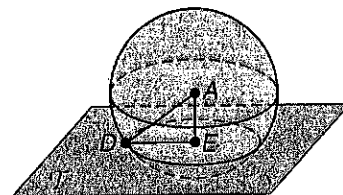


12-7

Skills Practice

Surface Areas of Spheres

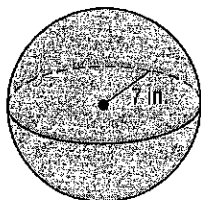
In the figure, A is the center of the sphere, and plane T intersects the sphere in circle E . Round to the nearest tenth if necessary.



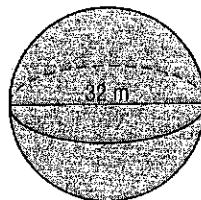
1. If $AE = 5$ and $DE = 12$, find AD .
2. If $AE = 7$ and $DE = 15$, find AD .
3. If the radius of the sphere is 18 units and the radius of $\odot E$ is 17 units, find AE .
4. If the radius of the sphere is 10 units and the radius of $\odot E$ is 9 units, find AE .
5. If M is a point on $\odot E$ and $AD = 23$, find AM .

Find the surface area of each sphere or hemisphere. Round to the nearest tenth.

6.



7.



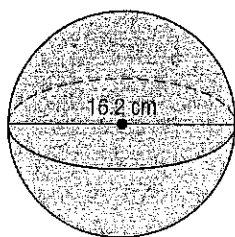
8. a hemisphere with a radius of the great circle 8 yards
9. a hemisphere with a radius of the great circle 2.5 millimeters
10. a sphere with the area of a great circle 28.6 inches

13-3**Skills Practice*****Volumes of Spheres***

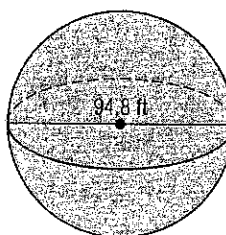
Find the volume of each sphere or hemisphere. Round to the nearest tenth.

1. The radius of the sphere is 9 centimeters.
2. The diameter of the sphere is 10 inches.
3. The circumference of the sphere is 26 meters.
4. The radius of the hemisphere is 7 feet.
5. The diameter of the hemisphere is 12 kilometers.
6. The circumference of the hemisphere is 48 yards.

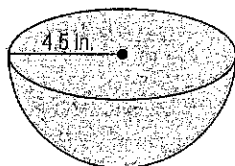
7.



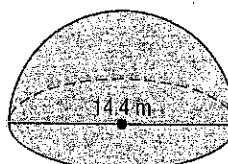
8.



9.

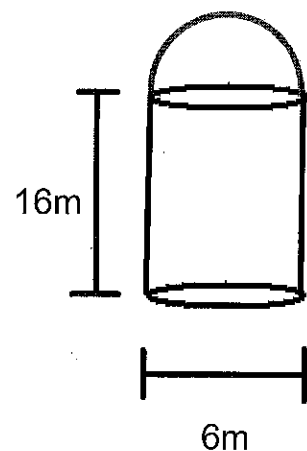


10.



Spheres

1. Find the radius and volume of a sphere with an area of 200π .
2. Find the radius and area of a sphere with a volume of 288π .
3. Find the radius and area of a sphere with a volume of 256π .
4. Find the area the circle formed when a plane passes 4cm from the center of a sphere with a radius of 10cm.
5. Find the area the circle formed when a plane passes 5cm from the center of a sphere with a radius of 12cm.
6. A water storage tank consists of a cylinder capped with a hemisphere. Find the volume of the tank.



7. Find the volume of a sphere with an area of 36π .